ENVIRONMENTAL QUALITY COUNCIL

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MEMORANDUM

To: Water Policy Subcommittee Members

From: MV Mary Vandenbosch
444-5367

Date: April 26, 2000

Subject: Response to Request for Information Regarding Regulation of Large Swine Operations

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Introduction

This memorandum is a response to information needs identified by subcommittee members during the January 20, 2000 subcommittee meeting. Subcommittee members requested information about:

- The distinction between an individual concentrated animal feeding operation (CAFO) permit and a general permit.
- Financial assurance for costs associated with swine operations.
- Criteria for siting swine facilities.

Options for potential next steps are presented for each topic. The tables referenced and a list of abbreviations used are presented at the end of the memorandum.

Montana Permitting Requirements: Individual Permits vs. General Permits

Types of Permits

Montana does not have regulations or permits specific to swine. Swine operations can be regulated under three types of permits:

- Individual Montana Ground Water Pollution Control System (MGWPCS) permit.
- General Montana Pollutant Discharge Elimination System (MPDES) permit for concentrated animal feeding operations (CAFOs).
- Individual MPDES permit.

All permits are issued by the Montana Department of Environmental Quality (DEQ). According to DEQ staff, there are no existing CAFOs that are currently regulated under individual MPDES permits. Two CAFOs are regulated under individual MGWPCS permits and not MPDES permits. According to DEQ staff, both operations could potentially be authorized to operated under the general permit.

When is An Individual Permit Required?

Time of Application

Administrative Rules (ARM 17.30.1341 (4)) require an owner or operator who wishes to operate a point source under a general permit to complete a standard MPDES permit application. The DEQ is required to either authorize the applicant to operate under the general permit or notify the applicant that the source does not qualify. The rules establish reasons for denial and the DEQ must cite one of these reasons (see Attachment A-- ARM 17.30.1341).

If the application is denied (and not withdrawn by the applicant), the DEQ must proceed to process the application as an individual MPDES permit.

Sources are exempt from the requirement for a MGWPCS permit if they have an MPDES permit.

Following General Permit Authorization

Under the proposed general permit the DEQ may require any owner or operator covered under the general permit to apply for and obtain an individual MGWPCS or MPDES permit if:

- the discharge (s) is a significant contributor of pollution;
- the discharger is not in compliance with the conditions of the general permit; or
- conditions or standards have changed so that the discharge no longer qualifies for a general permit.

How do Requirements for an Individual Permit Differ from a General Permit?

General Permit

General permit conditions are generic, rather than being tailored to an individual site. Operators who wish to operate under the general permit must apply for authorization to do so. The DEQ may impose conditions in its letter authorizing a facility to operate under a general permit. The authorization letter specifies the weather station that must be used for determining a 25-year, 24-hour rainfall event. (CAFO facilities must be designed, constructed, and operated to contain all process generated wastewaters plus the runoff from such a storm event.)

Authorization letters sometimes require ground water monitoring. Soil testing is required for one facility. The method of land application is restricted for one facility.

Individual Permit

Key differences between an individual permit and a general permit under administrative rules (ARM 17.30.1301 *et seq.)* include:

- A public notice and fact sheet is issued for each permit for an individual facility.
- A 30-day public comment period is required for each individual permit.
- DEQ is required to hold a public hearing when there is a significant degree of public interest.
- DEQ is required to respond to public comments.
- The fees are higher. The application fee for a general permit is $200; for an individual permit it is $2,500. The annual fee for a general permit is $250; for an individual permit it is $1,000.

According to DEQ staff, other differences include:

- The level of environmental review for each facility is greater. An environmental assessment or Environmental Impact Statement is completed for each facility.
- It takes longer to process the permit.
- Reporting is required more frequently (generally quarterly for individual permits in comparison with annually for general permits).

Options

A1. Do nothing further at this time.

A2. Include the descriptive information presented in this memo in the EQC's Water Policy Report.

A3. Seek public comment on whether or not the Board of Environmental Review should be encouraged or required (through legislation) to amend its rules to require individual permits for large swine operations. Key questions to consider include:

a. Which facilities (size, type) should be subject to the requirement?
b. Should the requirement apply to new facilities? expanded facilities? existing facilities?
c. other questions?

A4. Other options?

Financial Assurance

Montana

Montana does not require financial assurance for CAFOs.

Other States

Financial assurance requirements for selected states that have requirements specifically for swine operations are presented in Table 1. Not every state with a financial assurance requirement is included. Table 1 only shows the requirements that are in state laws. The types of costs for which financial assurance is required varies from state to state. All of these states authorize or require promulgation of rules by the appropriate environmental agency. The regulations may address the following:

- Allowable forms of financial assurance.
- The basis for determining the amount of financial assurance required.
- Revoking or denying issuance of permits if financial assurance is not provided in accordance with the regulations.
- Review of financial institutions and adequacy of financial assurance mechanisms.

- Assurance that the funds will be available to the agency when needed.
- Release.
- Forfeiture.
- Revision on a regular basis or as costs change.
- A provision stating that financial assurance does not relieve the operation from liability or responsibility for costs.

All four states reviewed authorize the use of surety bonds and irrevocable letters of credit for financial assurance. All four states authorize additional mechanisms which may include: federally insured certificates of deposit, government-backed securities, cash, trust funds, self-insurance, insurance, or financial test and guarantee.

Options

Options for the Water Policy Subcommittee are listed below.

B1. Do nothing further at this time.

B2. Include the descriptive information presented in this memo in the EQC's Water Policy Report.

B3. Seek public comment on proposed legislation to require financial assurance for swine operations. Key questions to consider include:
   a. Which facilities (size, type) should be subject to the requirement?
   b. Should the requirement apply to new facilities? expanded facilities? existing facilities?
   c. Should DEQ be authorized to develop rules for financial assurance requirements? If not, how will the adequacy of the financial assurance be determined? (Notes: other states typically authorize their regulatory agencies to develop rules. There will be a cost for DEQ to develop and implement the rules.)
   d. Should the allowable financial assurance mechanisms be specified in rules or in state law? If they are to be specified in state law, what mechanisms should be permitted?
   d. What types of costs should be covered (see Table 1 for costs covered in other states)?
   e. other questions?

B4. Other options?

Siting

Montana

Under the Montana Water Quality Act it is unlawful to cause pollution of state waters or to place wastes where they will cause pollution of state waters. Furthermore, in general, it is unlawful to cause degradation of state waters without authorization from the DEQ (75-5-605, MCA). This performance standard drives the siting of facilities.

The DEQ requests a variety of information relevant to siting and design in its application for a general permit for CAFOs (see Attachment B). DEQ staff can suggest different locations for facilities during the application review process. A pre-construction inspection is conducted for larger facilities. During this inspection, the DEQ staff can make suggestions about facility locations.

Because DEQ's authority to regulate CAFOs is based on preventing pollution of state waters, any requirements for facility locations must be based on preventing discharge into state waters.

A discharge to surface water is allowable only when precipitation causes an overflow from a facility designed, constructed, and operated to contain all process generated waste waters plus the runoff from a 25-year, 24-hour rainfall.

A discharge of pollutants to ground water may only occur when seepage or leachate from a CAFO, combined with the volume of ground water beneath the source, results in a ground water nitrate nitrogen concentration of less than 7.5 milligrams per liter.

Fixed Separation Requirements

An alternative approach is to establish fixed separation requirements. Table 2 shows requirements for states that have established specific setback requirements for swine operations. Not every state with specific separation requirements is included. Table 2 only shows requirements that are in state laws. Although Table 2 shows all separation requirements, the emphasis in this memorandum is on water quality-related setbacks. Colorado is the only state that has a fixed set back for ground water.

Separation requirements typically apply only to new or expanded facilities. Criteria for what qualify as an expanded facility subject to the requirement are defined in the law. Exemptions or provisions for a variance may be allowed. Some states specify that setbacks only apply to existing structures or areas. For example, if a house is built after a swine facility is permitted, the separation requirement does not apply.

Issues

Separation Requirements vs. Design Requirements

In some instances, there may be a tradeoff between separation requirements and design requirements. If the facility design is more protective, in theory, separation distances could be reduced. During the January 20, 2000 Water Policy Subcommittee meeting discussion Tim Byron noted that design standards for CAFOs are needed. Montana does not have specific design standards for CAFOs.

Performance Standards vs. Fixed Separation Distances

The relative merits of performance standards vs. technology standards are frequently debated in environmental policy decisions. Montana's approach is a performance standard. Fixed separation distances are comparable to technology standards. The two types of standards are not exclusive. A state can use both.

In general, performance standards are more flexible. Site characteristics, design and operation practices can be combined in order to meet the goal. However, performance standards are less predictable. Without an engineer or similar expertise, the potential applicant does not know what is required. There is a potential for the applicant and the applicant's attorneys and consultants to become engaged in a debate with the regulatory agency about what measures are adequate. This has the potential to be costly. If agency staff or the applicant do not have sufficient resources to evaluate an applicant's proposed design and construction plan in light of site characteristics, in theory facility design may be inadequate and the performance standards may be violated. It should be noted that, in general, MDEQ staff have not experienced problems of this nature to date.

A fixed separation distance is much less flexible, although some states make provisions for exemptions under certain conditions. The separation distance may be more or less than is adequate to protect water quality. If it is more, the facility owner/operator may face greater costs than may be necessary. If it is less, the separation distance may provide a false sense of security. An advantage of fixed separation distances is that they are predictable. The applicant, the regulatory agency, and neighboring landowners all know what is expected.

Options

Options for the Water Policy Subcommittee are listed below. The options are focused on water quality. However, other options could be considered.

C1. Do nothing further at this time.

C2. Include the descriptive information presented in this memo in the EQC's Water Policy Report.

C3. Seek public comment on proposed legislation to establish siting criteria for swine operations. Key questions to consider include:

a. Which facilities or facility components (size, type) should be subject to the requirement?
b. Should the requirement apply to new swine facilities? expanded facilities? existing facilities?
c. Should DEQ be authorized to develop rules to establish specific separation requirements. (Note: there will be a cost for DEQ to develop and implement the rules.)
d. Should separation be required from: public or private drinking water wells, surface water, impaired or threatened waters, floodplains, or ground water? other areas or structures?
e. other questions?

C4. Focus on design standards instead of or in addition to siting criteria.
a. Seek comment on proposed legislation to require design standards specifically for swine facilities of a certain size.
b. Discuss with DEQ the possibility of developing design standards for swine facilities or CAFOs without legislation.
c. Other.

C5. Other options?

Next Steps

The Water Policy Subcommittee does not have to do anything more with this issue. If the Water Policy Subcommittee decides to pursue proposed options, a draft report will be issued for public comment. What additional background information should be included?

Are there other issues that should also be addressed? Resources are limited and a comprehensive report or proposal regarding regulation of swine operations is not feasible within the EQC's interim time line. However, other options are possible. For example, one other state's law could be circulated as a model proposal. Keep in mind that we do not have time to do a thorough analysis of each component of even one other state's laws.

Abbreviations

AFO	Animal Feeding Operation
AUs	Animal Units
CAFO	Concentrated Animal Feeding Operation
CDPHE	Colorado Department of Public Health and Environment
DEQ	Montana Department of Environmental Quality
IDEQ	Idaho Division of Environmental Quality (Department after July 1, 2000)
KDHE	Kansas Department of Health and Environment
MPDES	Montana Pollutant Discharge Elimination System
WDEQ	Wyoming Department of Environmental Quality

Table 1. Financial Assurance Requirements Applicable to Swine Facilities under State Laws

	Colorado	Wyoming	Kansas	Idaho
Facility size/type	800,000 lbs. or designated commercial by local zoning regs	Facilities with ≥ 1,000 AUs (= 2,500 swine) and treatment works	Facilities with ≥ 3,725 AUs and swine waste retention pond or lagoon	Defined by IDEQ (currently 2,000 AUs)
Rulemaking authority	Yes	Yes	Yes	Yes
Mechanisms allowed	Not specified in law	Not specified in law	Not specified in law	Surety bonds, trust funds, irrevocable letters of credit, insurance, corporate guarantees.
Closure	Required	Required	Operator required to demonstrate to KDHE annually ability to cover cost of closure of lagoon or pond	Required
Postclosure activities	Required			
Corrective action	Required when made necessary by spill, breach, or migration of contaminants to soil or ground water	Required for accidents		Required for remediation
Other				-IDEQ may retain financial assurances up to 5 years after closure -Counties may require greater financial assurances

Table 2. Siting of Swine Facilities: Comparison of Selected State Laws with Specific Separation Requirements

State	Facilities Affected		Water Supply	Surface Water		Ground Water	Occupied Dwellings[1]	Municipalities	Local Option	Other	Remarks
	Type	Size									
Colorado	-land waste application areas -waste impoundments	800,000 lbs.(est. 2,000-5,000 hogs) or designated commercial by local zoning regs		-requires setbacks to protect water quality to be established by rule - waste impoundments must be outside of 100-year floodplain unless floodproof		requires setbacks to protect water quality to be established by rule	1 mile	1 mile from incorporated municipalities without consent	authorized to impose more restrictive requirements	1 mile from school without consent	Adopted by initiative.
Wyoming	- structures housing swine - lagoons	≥ 1,000 AUs (= 2,500 swine)	1/4 mile from water well permitted for domestic purposes without written consent	1/4 mile from perennial stream unless potential adverse impacts to water quality can be avoided.			1 mile	1 mile from incorporated municipalities without consent	More stringent local land use plans and zoning authorized	1 mile from school without consent	WDEQ required to adopt rules.
Kansas	swine waste management system	≥ 3,725AUs[2]	-250 ft. from private drinking water well -1,000 ft. from public drinking water well	500 ft. from any surface water	-located to prevent impairment of surface water - outside of 100-year floodplain unless floodproof	located to prevent impairment of ground water					
		1,000-3,724AUs		250 ft.							
		<1,000AUs		100 ft.							
	confined swine feeding facility[3]	300-999 AUs					1,320 ft. (existing only)			1,320 feet from existing local, state, or federal parks and habitable structures[4]	KDHE may reduce under certain conditions.
		1,000 to 3,724 AUs					4,000 ft. (existing only)			-4,000 feet from existing local, state, or federal parks or habitable structures -10,000 feet from wildlife refuge	

[1] Location within setback distance authorized with written consent.

[2] Animal units are calculated by multiplying: 0.4 by the number of swine weighing more than 55 pounds; and 0.1 by the number of swine weighing 55 pounds or less.

[3] Setback calculated from exterior perimeter of buildings housing swine, lots containing swine, waste retention lagoons or ponds, manure or wastewater storage structures and areas designated for expansion.

[4] Habitable structures include any of the following structures which is occupied or maintained in a condition which may be occupied and owned by a person other than the operator of the facility: dwelling, church, school, adult care home, medical care facility, child care facility, library, community center, public building, office building or licensed food service or lodging establishment.

State	Facilities Affected		Water Supply	Surface Water	Ground Water	Occupied Dwellings[1]	Municipalities	Local Option	Other	Remarks
	Type	Size								
Kansas, continued		≥3,725AUs				4,000 ft. from existing (expansion within perimeter) 5,000 feet from existing (new or expansion outside of perimeter)			-16,000 feet from wildlife refuge -4,000 ft. from existing habitable structures (expansion within perimeter) -5,000 feet from existing habitable structures (new or expansion outside of perimeter)	
Idaho	waste facility	≥20,000AUs[5]	1 mile from domestic or public well or public water source			2 miles				Local option to follow this process, local process or no local siting process beyond state rules. Panel approves or rejects site, may propose mitigation. Public notice and public hearing required. Supplemental to requirements in IDEQ rules. Lesser setbacks may be imposed.
	land application		100 ft. from existing public or private drinking water well			1 mile				
	swine facility							must comply with local land use plan or zoning requirements	-may not be located within critical habitat for endangered or threatened species -1 mile from local, state or national park & other scenic/natural areas -2 miles from church, school, hospital, community center	
	portion of facility that receives waste and is not closed (active unit)			-outside of 100 year floodplain -500 ft. upstream from perennial stream or river -1,000 ft. from perennial lake or pond -may not cause measurable impact on water quality limited streams	may not be located where integrity of site compromised by ground water				-outside of wetland -200 ft. from property line of adjacent land -200 ft. from Holocene fault/other geologic features -outside of seismic impact zones -not on unstable site	
	confined animal feeding operations	Large (defined by county board)						Counties may regulate siting of large confined animal feeding operations and facilities. May approve or reject sites.		Public hearing for proposed sites. Public comment only allowed from residents within 1 mile radius unless county increases radius. Counties with existing process exempt.

[5] Animal units are calculated by multiplying: 0.4 by the number of swine weighing more than 25 kilograms (approximately 55 pounds); and 0.1 by the number of weaned swine weighing 55 pounds or less. These figures are added to determine the total number of AUs.

Attachment A

17.30.1341 GENERAL PERMITS (1) The department may issue general permits for the following categories of point sources which the board has determined are appropriate for general permitting under the criteria listed in 40 CFR 122.28:

(a) cofferdams or other construction dewatering discharges;

(b) groundwater pump test discharges;

(c) fish farms;

(d) placer mining operations;

(e) suction dredge operations using suction intakes no larger than 4" in diameter;

(f) oil well produced water discharges for beneficial use;

(g) animal feedlots;

(h) common facultative sewage lagoons;

(i) sand and gravel mining and processing operations;

(j) stormwater point sources;

(k) treated water discharged from petroleum cleanup operations;

(l) discharges from public water supply systems, as determined under Title 75, chapter 6, MCA;

(m) discharges to wetlands that do not contain perennial free surface water;

(n) discharges from road salting operations;

(o) asphalt plant discharges;

(p) discharges of hydrostatic testing water;

(q) discharges of noncontact cooling water;

(r) swimming pool discharge; and

(s) septic tank pumper disposal sites.

(2) Although general MPDES permits may be issued for a category of point sources located throughout the state, they may also be restricted to more limited geographical areas.

(3) Prior to issuing a general MPDES permit, the department shall prepare a public notice which includes the equivalent of information listed in ARM 17.30.1372(6) and shall publish the same as follows:

(a) prior to publication, notice to the US environmental protection agency;

(b) direct mailing of notice to the Water Pollution Control Advisory Council and to any persons who may be affected by the proposed general permit;

(c) publication of notice in a daily newspaper in Helena and in other daily newspapers of general circulation in the state or affected area;

(d) after publication, a hearing must be held and a 30-day comment period allowed as provided in ARM 17.30.1372 through 17.30.1377 and 17.30.1383.

(4) A person owning or proposing to operate a point source who wishes to operate under a general MPDES permit shall complete a standard MPDES application form available from the

department. The department shall, within 30 days of receiving a completed application, either issue to the applicant an authorization to operate under the general MPDES permit, or shall notify the applicant that the source does not qualify for authorization under a general MPDES permit, citing one or more of the following reasons as the basis for denial:

(a) the specific source applying for authorization appears unable to comply with the following requirements:

(i) effluent standards, effluent limitations, standards of performance for new sources of pollutants, toxic effluent standards and prohibitions, and pretreatment standards;

(ii) water quality standards established pursuant to 75-5-301, MCA;

(iii) prohibition of discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste;

(iv) prohibition of any discharge which the secretary of the army acting through the chief of engineers finds would substantially impair anchorage and navigation;

(v) prohibition of any discharges to which the regional administrator has objected in writing;

(vi) prohibition of any discharge which is in conflict with a plan or amendment thereto approved pursuant to section 208(b) of the act; and

(vii) any additional requirements that the department determines are necessary to carry out the provisions of 75-5-101, MCA, et seq.

(b) the discharge is different in degree or nature from discharges reasonably expected from sources or activities within the category described in the general MPDES permit;

(c) an MPDES permit or authorization for the same operation has previously been denied or revoked;

(d) the discharge sought to be authorized under a general MPDES permit is also included within an application or is subject to review under the Major Facility Siting Act, 75-20-101, et seq., MCA;

(e) the point source will be located in an area of unique ecological or recreational significance. Such determination must be based upon considerations of Montana stream classifications adopted under 75-5-301, MCA, impacts on fishery resources, local conditions at proposed discharge sites, and designations of wilderness areas under 16 USC 1132 or of wild and scenic rivers under 16 USC 1274.

(5) Where authorization to operate under a general MPDES permit is denied, the department shall proceed, unless the application is withdrawn, to process the application as an individual MPDES permit under this subchapter.

(6) Every general MPDES permit must have a fixed term not to exceed 5 years. Except as provided in (10) of this rule, every authorization to operate under a general MPDES permit expires at the same time the general MPDES permit expires.

(7) Where authorization to operate under a general MPDES permit is issued to a point source covered by an individual MPDES permit, the department shall, upon issuance of the authorization to operate under the general MPDES permit, terminate the individual MPDES permit for that point source.

(8) Any person authorized or eligible to operate under a general MPDES permit may at any time apply for an individual MPDES permit according to the procedures in this subchapter. Upon issuance of the individual MPDES permit, the department shall terminate any general MPDES permit authorization held by such person.

(9) The department, on its own initiative or upon the petition of any interested person, may modify, suspend, or revoke in whole or in part a general MPDES permit or an authorization to operate under a general MPDES permit during its term in accordance with the provisions of ARM 17.30.1361 for any cause listed in ARM 17.30.1361 or for any of the following causes:

(a) the approval of a water quality management plan containing requirements applicable to point sources covered in the general MPDES permit;

(b) determination by the department that the discharge from any authorized source is a significant contributor to pollution as determined by the factors set forth in 40 CFR 122.26(c)(2); or

(c) a change in the availability of demonstrated technology or practices for the control or abatement of pollutants applicable to a source or to a category of sources;

(d) occurrence of one or more of the following circumstances:

(i) violation of any conditions of the permit; or

(ii) obtaining an MPDES permit by misrepresentation or failure to disclose fully all relevant facts;

(iii) a change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; or

(iv) a failure or refusal by the permittee to comply with the requirements of 75-5-602, MCA.

(10) The department may reissue an authorization to operate under a general MPDES permit provided that the requirements for reissuance of MPDES permits specified in ARM 17.30.1322.

(11) The department shall maintain and make available to the public a register of all sources and activities authorized to operate under each general MPDES permit including the location of such sources and activities, and shall provide copies of such registers upon request.

(12) For purposes of this rule, the board hereby adopts and incorporates by reference (see ARM 17.30.1303 for complete information about all materials incorporated by reference):

(a) 40 CFR 122.28 (July 1, 1991) which sets forth criteria for selecting categories of point sources appropriate for general permitting;

(b) 40 CFR 124.10(d)(1) (July 1, 1991) which sets forth minimum contents of public notices;

(c) 40 CFR 122.26(c)(2) (July 1, 1991) which sets forth criteria for determining when a point source is considered a "significant contributor of pollution";

(d) 16 USC 1132 (wilderness area designations); and

(e) 16 USC 1274 (wild and scenic river designations). (History: 75-5-201, 75-5-401, MCA; IMP, 75-5-401, MCA; NEW, 1989 MAR p. 2060, Eff. 12/8/89; AMD, 1992 MAR p. 1241, Eff. 6/12/92; TRANS, from DHES, 1996 MAR p. 1499.)

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MONTANA POLLUTANT DISCHARGE ELIMINATION SYSTEM
APPLICATION FOR PERMIT TO DISCHARGE - SHORT FORM B

WPB 1-99

FOR AGENCY USE ONLY

APPLICATION NUMBER								

To be completed by concentrated animal feeding operations (CAFO). Please Print or type.

A. Name of operation _____

Name of owner _____

Address _____ Town _____ Zip Code _____

Telephone: Residence _____ Business _____

Name of authorized representative _____

Address _____ Town _____ Zip Code _____

Telephone: Residence _____ Business _____

B. Location of Concentrated Animal Feeding Operation:

1. Legal Description:

NE) (SE) (NW) (SW) Quarter, _____ (NE) (SE) (NW) (SW) Quarter, Section _____

Township _____ (N) (S), Range _____ (E) (W) County _____

2. Directions and distance from the nearest town: _____

_____

_____

C. Description of Concentrated Animal Feeding Operation:

1. Maximum design capacity of the operation: (*maximum number of animals*)

Cattle _____ Swine _____ Dairy _____ Sheep _____

Poultry _____ Game Species _____ Other _____

2. Type of operation: Existing ☐ (Date started _____) Proposed ☐

3. Physical data for CAFO site:

Area _____ acres.

Slope: Length _____ feet, _____ % grade

Soil characteristics: (Indicate dominant texture, i.e. sand, silt, clay, gravel and kind of bedrock.)

Surface _____ Subsurface _____ Depth to groundwater _____ feet

Area contributing surface drainage from outside the CAFO that enters livestock confinement areas and waste storage, conveyance or treatment structures. _____ acres.

25-year, 24-hour rainfall event: _____ inches. (Rainfall event information may be obtained from the Natural Resource Conservation Service office in your area.)

Maximum daily wastewater volume: _____ Gallons. (Where livestock are totally confined within a building, estimate the total volume consisting of animal manure plus flushing water that will enter waste storage or treatment structures.)

Daily volume is calculated by: Multiplying number of animals _____ by the daily waste production per animal ___ (gal/hd/day), and adding the volume of flushing water used per day _____(gal/day).

Attachment B

D. Description of Waste Control Facilities (Attach design drawings or plans when available):

1. Type of system planned or existing (check)

Settling pond ☐ Evaporation pond ☐ Retention pond ☐ Holding tank ☐ Solids separator ☐

Sprinkler irrigation ☐☐ Other (Explain) ☐ _____

_____

_____

2. Dimensions of each waste storage structure: Width _____ feet; Length _____ feet;

Design pool depth _____ feet.

3. Storage Capacity: _____ gallons

4. USDA soil textural class or unified soil classification System class for soil in waste storage structure area:

Surface soil _____ Subsurface soil _____

Soil parent material type _____

Depth to bedrock from the bottom of excavation _____ feet

Depth to groundwater from the bottom of excavation _____ feet

5. Storage structure liner specifications:

Material _____, Thickness _____, Permeability _____ Inches/year.

6. Name of person designing the waste storage structure _____

E. Describe the method and frequency of solid waste removal and land application from the CAFO area:

_____

_____

1. Tons of solid waste produced per year _____

2. Tons land applied per year _____

3. Application Rate _____ tons/acre

F. Describe the method and frequency of removal and land application of liquid waste from the storage structures:

_____

_____

_____

1. Gallons produced per year _____

2. Gallons land applied per year _____

3. Application Rate _____ gallons/acre

4. Liquid waste nutrient concentration: Total nitrogen _____ lbs/1000 gallons

Total phosphorus _____ lbs/1000 gallons

G. Describe the location and size of the application area for both liquid and solid waste:

Area used: _____ acres. Area available: _____ acres. Crop cover: _____

NE) (SE) (NW) (SW) Quarter, _____ (NE) (SE) (NW) (SW) Quarter, Section _____

Township _____ (N) (S), Range _____ (E) (W)

Kind of soil (sandy, silty, or clay) _____

Landowner's name: _____

H. Describe the frequency and timing of soil fertility testing within waste application area:_____

_____

Depth to groundwater _____ feet.

Average slope _____ % grade.

I. Describe program for reducing odor and dust from the concentrated animal feeding operation _____

_____

J. Describe program for fly and rodent control_____

_____

K. Describe the method and location of disposal of dead animals_____

_____

_____

L. Attach a map (1:24,000 scale) of the concentrated animal feeding operation that illustrates the following:

1. Overall dimensions of the confinement and the location of physical features including livestock waste storage structures.
2. Drainage pattern of concentrated animal feeding operation and surrounding area.
3. Location of drain ditches and streams within one (1) mile.
4. Location of wells within one half (1/2) mile and their approximate depths.
5. Location of occupied residential areas within a radius of one (1) mile of the operation.
6. Direction of prevailing winds.

I certify that I am familiar with the information contained in the application and that to the best of my knowledge and belief such information is true, complete, and accurate.

Name and Official Title *(type or print)*	**Signature**	**Date Signed**